

#6  
2/8/01PCT  
09

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/646,679

DATE: 04/04/2001

TIME: 11:39:42

Input Set : A:\seqlist-0623.0890000.txt

Output Set: N:\CRF3\04042001\I646679.raw

**ENTERED**  
See p. 5.

4 <110> APPLICANT: Wyatt, Paul  
5 Roberts, Jeremy A.  
6 Whitelaw, Catherine  
8 <120> TITLE OF INVENTION: Signal Transduction Protein Involved in Plant Dehiscence  
10 <130> FILE REFERENCE: 0623.0890000  
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/646,679  
C--> 14 <141> CURRENT FILING DATE: 2000-09-20  
16 <150> PRIOR APPLICATION NUMBER: GB9806113.8  
18 <151> PRIOR FILING DATE: 1998-03-20  
20 <160> NUMBER OF SEQ ID NOS: 38  
22 <170> SOFTWARE: PatentIn Ver. 2.0  
25 <210> SEQ ID NO: 1  
26 <211> LENGTH: 14  
27 <212> TYPE: DNA  
28 <213> ORGANISM: Artificial Sequence  
30 <220> FEATURE:  
31 <223> OTHER INFORMATION: Description of Artificial Sequence: oligo dT primer 7  
33 <400> SEQUENCE: 1  
35 tttttttttt ttgg 14  
38 <210> SEQ ID NO: 2  
39 <211> LENGTH: 10  
40 <212> TYPE: DNA  
41 <213> ORGANISM: Artificial Sequence  
43 <220> FEATURE:  
44 <223> OTHER INFORMATION: Description of Artificial Sequence: Arbitrary primer A  
46 <400> SEQUENCE: 2  
47 agccagcgaa 10  
50 <210> SEQ ID NO: 3  
51 <211> LENGTH: 19  
52 <212> TYPE: DNA  
53 <213> ORGANISM: Artificial Sequence  
55 <220> FEATURE:  
56 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ2BFL  
58 <400> SEQUENCE: 3  
59 aaccaagtca gtagaagtg 19  
62 <210> SEQ ID NO: 4  
63 <211> LENGTH: 18  
64 <212> TYPE: DNA  
65 <213> ORGANISM: Artificial Sequence  
67 <220> FEATURE:  
68 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer T7  
70 <400> SEQUENCE: 4  
71 aatacgactc actatagg 18  
74 <210> SEQ ID NO: 5  
75 <211> LENGTH: 26  
76 <212> TYPE: DNA  
77 <213> ORGANISM: Artificial Sequence

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79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ2BGENF
82 <400> SEQUENCE: 5
83 ggctctagac gaactgcgga gcaagg                26
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 29
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial Sequence
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ2BGENR
94 <400> SEQUENCE: 6
95 ctgccatggt cggttttttt tcttcgaac            29
98 <210> SEQ ID NO: 7
99 <211> LENGTH: 23
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer ATDZ2F
106 <400> SEQUENCE: 7
107 cactagtagg gcacgcgtgg tcg                23
110 <210> SEQ ID NO: 8
111 <211> LENGTH: 27
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer ATDZ2R
118 <400> SEQUENCE: 8
119 tccatggtcg atttcttttc tctcaag            27
122 <210> SEQ ID NO: 9
123 <211> LENGTH: 28
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ2FLA
130 <400> SEQUENCE: 9
131 ggcgaaattcc ggtgaggagg cagtaatc            28
134 <210> SEQ ID NO: 10
135 <211> LENGTH: 28
136 <212> TYPE: DNA
137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ2RLA
142 <400> SEQUENCE: 10
143 ggcccatggc atacatacac acttagac            28
146 <210> SEQ ID NO: 11
147 <211> LENGTH: 22
148 <212> TYPE: DNA
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:

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152 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer DZ15RL
154 <400> SEQUENCE: 11
155 aacagctgaa aacctcacga ag 22
158 <210> SEQ ID NO: 12
159 <211> LENGTH: 28
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer F1
166 <400> SEQUENCE: 12
167 ggcccatggc tgccaagctt tgagtagc 28
170 <210> SEQ ID NO: 13
171 <211> LENGTH: 27
172 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer R1
179 <400> SEQUENCE: 13
180 ggcctgcagt gcctaggatc tggaagc 27
183 <210> SEQ ID NO: 14
184 <211> LENGTH: 605
185 <212> TYPE: DNA
186 <213> ORGANISM: Brassica napus
188 <220> FEATURE:
189 <221> NAME/KEY: CDS
190 <222> LOCATION: (20)..(427)
192 <400> SEQUENCE: 14
193 ggcacgagca gaatcgaag /atg gca aca aaa tcc atg gga gat atc gag aaa 52
194 Met Ala Thr Lys Ser Met Gly Asp Ile Glu Lys
195 1 5 10
197 ata aag aag aaa cta aac gtg ttg atc gtc gat gat gat cca cta aac 100
198 Ile Lys Lys Lys Leu Asn Val Leu Ile Val Asp Asp Asp Pro Leu Asn
199 15 20 25
201 ctt ata att cat gag aag atc atc aaa gcg att ggg ggt att tca cag 148
202 Leu Ile Ile His Glu Lys Ile Ile Lys Ala Ile Gly Gly Ile Ser Gln
203 30 35 40
205 aca gcg aat aac ggt gag gag gca gta atc atc cac cgt gac ggc ggc 196
206 Thr Ala Asn Asn Gly Glu Glu Ala Val Ile Ile His Arg Asp Gly Gly
207 45 50 55
209 tca tct ttt gac ctt atc cta atg gat aaa gaa atg ccc gag agg gat 244
210 Ser Ser Phe Asp Leu Ile Leu Met Asp Lys Glu Met Pro Glu Arg Asp
211 60 65 70 75
213 ggt gtt tcg aca act aag aag cta aga gaa atg gaa gtg aag tca atg 292
214 Gly Val Ser Thr Thr Lys Lys Leu Arg Glu Met Glu Val Lys Ser Met
215 80 85 90
217 att gtt ggg gtg act tca ctg gct gac aat gaa gag gag cgc agg gct 340
218 Ile Val Gly Val Thr Ser Leu Ala Asp Asn Glu Glu Glu Arg Arg Ala
219 95 100 105
221 ttc atg gaa gct gga ctt aac cat tgc ttg gca aaa ccg tta acc aag 388

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```

222 Phe Met Glu Ala Gly Leu Asn His Cys Leu Ala Lys Pro Leu Thr Lys
223      110      115      120
225 gac aag atc atc cct ctc att aac caa ctc atg gat gct/tgatggatat 437
226 Asp Lys Ile Ile Pro Leu Ile Asn Gln Leu Met Asp Ala
227      125      130      135
229 atattttata ttatggaaac acacataata acgtctaagt gtgtatgtat gcatagataac 497
231 ttgcatgtgt gtgttttaga atttaggggtt ctttatcgtc cgtgatatat aatcatgtaa 557
233 gttgttgctt taagcttata aaatatTTAA ataaggggtt cctctacc 605
236 <210> SEQ ID NO: 15
237 <211> LENGTH: 136
238 <212> TYPE: PRT
239 <213> ORGANISM: Brassica napus
241 <400> SEQUENCE: 15
242 Met Ala Thr Lys Ser Met Gly Asp Ile Glu Lys Ile Lys Lys Lys Leu
243 1 5 10 15
245 Asn Val Leu Ile Val Asp Asp Asp Pro Leu Asn Leu Ile Ile His Glu
246 20 25 30
248 Lys Ile Ile Lys Ala Ile Gly Gly Ile Ser Gln Thr Ala Asn Asn Gly
249 35 40 45
251 Glu Glu Ala Val Ile Ile His Arg Asp Gly Gly Ser Ser Phe Asp Leu
252 50 55 60
254 Ile Leu Met Asp Lys Glu Met Pro Glu Arg Asp Gly Val Ser Thr Thr
255 65 70 75 80
257 Lys Lys Leu Arg Glu Met Glu Val Lys Ser Met Ile Val Gly Val Thr
258 85 90 95
260 Ser Leu Ala Asp Asn Glu Glu Glu Arg Arg Ala Phe Met Glu Ala Gly
261 100 105 110
263 Leu Asn His Cys Leu Ala Lys Pro Leu Thr Lys Asp Lys Ile Ile Pro
264 115 120 125
266 Leu Ile Asn Gln Leu Met Asp Ala
267 130 135
270 <210> SEQ ID NO: 16
271 <211> LENGTH: 136
272 <212> TYPE: PRT
273 <213> ORGANISM: Brassica napus
275 <400> SEQUENCE: 16
276 Met Ala Thr Lys Ser Met Gly Asp Ile Glu Lys Ile Lys Lys Lys Leu
277 1 5 10 15
279 Asn Val Leu Ile Val Asp Asp Asp Pro Leu Asn Leu Ile Ile His Glu
280 20 25 30
282 Lys Ile Ile Lys Ala Ile Gly Gly Ile Ser Gln Thr Ala Asn Asn Gly
283 35 40 45
285 Glu Glu Ala Val Ile Ile His Arg Asp Gly Gly Ser Ser Phe Asp Leu
286 50 55 60
288 Ile Leu Met Asp Lys Glu Met Pro Glu Arg Asp Gly Val Ser Thr Thr
289 65 70 75 80
291 Lys Lys Leu Arg Glu Met Glu Val Lys Ser Met Ile Val Gly Val Thr
292 85 90 95
294 Ser Leu Ala Asp Asn Glu Glu Glu Arg Arg Ala Phe Met Glu Ala Gly

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```

295          100          105          110
297 Leu Asn His Cys Leu Ala Lys Pro Leu Thr Lys Asp Lys Ile Ile Pro
298          115          120          125
300 Leu Ile Asn Gln Leu Met Asp Ala
301          130          135
304 <210> SEQ ID NO: 17
305 <211> LENGTH: 132
306 <212> TYPE: PRT
307 <213> ORGANISM: Escherichia coli
309 <400> SEQUENCE: 17
310 Met Gln Glu Asn Tyr Lys Ile Leu Val Val Asp Asp Asp Met Arg Leu
311 1          5          10          15
313 Arg Ala Leu Leu Glu Arg Tyr Leu Thr Glu Gln Gly Phe Gln Val Arg
314          20          25          30
316 Ser Val Ala Asn Ala Glu Gln Met Asp Arg Leu Leu Thr Arg Glu Ser
317          35          40          45
319 Phe His Leu Met Val Leu Asp Leu Met Leu Pro Gly Glu Asp Gly Leu
320          50          55          60
322 Ser Ile Cys Arg Arg Leu Arg Ser Gln Ser Asn Pro Met Pro Ile Ile
323 65          70          75          80
325 Met Val Thr Ala Lys Gly Glu Glu Val Asp Arg Ile Val Gly Leu Glu
326          85          90          95
328 Ile Gly Ala Asp Asp Tyr Ile Pro Lys Pro Phe Asn Pro Arg Glu Leu
329          100          105          110
331 Leu Ala Arg Ile Arg Ala Val Leu Arg Arg Gln Ala Asn Glu Leu Pro
332          115          120          125
334 Gly Ala Pro Ser
335          130
338 <210> SEQ ID NO: 18
339 <211> LENGTH: 126
340 <212> TYPE: PRT
341 <213> ORGANISM: Escherichia coli
343 <400> SEQUENCE: 18
344 Met Ala Arg Arg Ile Leu Val Val Glu Asp Glu Ala Pro Ile Arg Glu
345 1          5          10          15
347 Met Val Cys Phe Val Leu Glu Gln Asn Gly Phe Gln Pro Val Glu Ala
348          20          25          30
350 Glu Asp Tyr Asp Ser Ala Val Asn Gln Leu Asn Glu Pro Trp Pro Asp
351          35          40          45
353 Leu Ile Leu Leu Asp Trp Met Leu Pro Gly Gly Ser Gly Ile Gln Phe
354          50          55          60
356 Ile Lys His Leu Lys Arg Glu Ser Met Thr Arg Asp Ile Pro Val Val
357 65          70          75          80
359 Met Leu Thr Ala Arg Gly Glu Glu Glu Asp Arg Val Arg Gly Leu Glu
360          85          90          95
362 Thr Gly Ala Asp Asp Tyr Ile Thr Lys Pro Phe Ser Pro Lys Glu Leu
363          100          105          110
365 Val Ala Arg Ile Lys Ala Val Met Arg Arg Ile Ser Pro Met
366          115          120          125

```

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/646,679

DATE: 04/04/2001

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Input Set : A:\seqlist-0623.0890000.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:803 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:852 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:920 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29